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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,779	09/08/2003	Dave R. McCollum	Honeywell No. H0004306	1356

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EXAMINER

DATSKOVSKIY, MICHAEL V

ART UNIT	PAPER NUMBER
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2835

DATE MAILED: 07/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/657,779

Applicant(s)

MCCOLLUM ET AL.

Examiner

Michael V. Datskovskiy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,8-17,21 and 24 is/are rejected.
- 7) ☒ Claim(s) 3,5-7,18-20,22 and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 24 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. For example, as in proper dependent form, examiner would suggest the following: "The packaging system for electronic circuitry of claim 21 further including a mounting hardware."

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 16-17, 21 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Engelder (US Patent 4,440,219).

Engelder teaches a packaging system for electronic circuitry 26, wherein the electronic circuitry 26 is disposed on a substrate 85, the packaging system comprising: an inner housing 20 surrounding the substrate 85; an outer housing 21 surrounding the inner housing 20 and the substrate 85; a gap between the inner and the outer housings, the gap filled with insulating fluid (vacuum). Engelder teaches furthermore: said inner housing 21 is filled with air, which provides an additional insulating layer for the electronic circuitry 26; said inner housing is inherently made of a material having low

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thermal conductivity, and includes an outer surface having at least one protrusion 45 extending away from the outer surface. The system by Engelder also comprises a mounting hardware 24.

4. Claims 1, 4, 8-11 and 13-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Groenewegen (US Patent 4,944,401).

Groenewegen teaches a packaging system for electronic circuitry 14, wherein the electronic circuitry 14 is disposed on a circuit – board – based substrate 16, the packaging system comprising: an inner housing 24 surrounding the substrate 16; an outer housing 50 surrounding the inner housing 24 and the substrate 16; a gap between the inner and the outer housings, the gap filled with insulating media 60. Groenewegen teaches furthermore: said inner housing 24 is filled with wax 46, which provides an additional insulating layer for the electronic circuitry 14; said inner housing is made of a metallic material and said outer housing 50 is made of steel. Groenewegen also teaches that his device can maintain operability being exposed to the high temperature up to 1,100 ° C for time up to .5 hour (col. 7, lines 1-7), which overlaps claimed by the applicant ranges.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Engelder.

Engelder teaches all the limitations of the claim except certain ranges of a size of the gap depending on the material of the outer and the inner housings. It would have been obvious to one skilled in the art at the time invention was made to employ such ranges, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Karlson, 136 USPQ 184.

Allowable Subject Matter

7. Claims 3, 5-7, 18-20, 22-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: The gap between housings is filled by air (claim 3); The electronic circuitry as of claim 1 comprises sensing electronics (claims 5-7); In combination with claim 17 and all other limitations of the claim 18, the limitation that at least one protrusion from the outer surface of the inner housing defines at least one first pedestal located on the distal end, and a plurality of second pedestals located axially on the outer surface of the inner housing (claims 18-20); In combination with claim 17, 21, the system further comprising

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an EMI interference shield located between the inner housing and the substrate (claim 22); or the same limitation in combination with only claim 17 (claim 23).

9. The prior art made of record provided in the PTO Form 892 and not relied upon is considered pertinent to applicant's disclosure.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael V. Datskovskiy whose telephone number is (571) 272-2040. The examiner can normally be reached on 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (571) 272-2092. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael V Datskovskiy
Primary Examiner
Art Unit 2835

07/21/2005